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COSTS and RETURNS



**Commercial
Cotton
Farms**

1966

FARM COSTS STUDIES

This report is part of a continuing nationwide study of costs and returns on commercial farms and ranches by type and size in some of the important farming regions of the United States. The study is conducted under the general supervision of Wylie D. Goodsell, Farm Production Economics Division, Economic Research Service. Objectives, methodology, procedure, and terms are uniform for all areas covered in the study.

The 1966 costs and returns studies have been conducted on the following:

Dairy Farms, Northeast and Midwest
 Corn Belt Farms
 Egg-Producing Farms, New Jersey
 Broiler Farms, Maine, Delmarva, and Georgia
 Cotton Farms
 Tobacco Farms, Coastal Plain, North Carolina
 Tobacco-Livestock Farms, Bluegrass Area, Kentucky and Penn-royal Area, Kentucky-Tennessee
 Wheat Farms, Plains and Pacific Northwest
 Western Livestock Ranches

Summary statistics for all types of farms in the study are presented in a report, revised annually. The latest such report was published in 1966 and is titled: "Farm Costs and Returns, Commercial Farms, by Type, Size, and Location," Agriculture Information Bulletin No. 230, Revised 1966.

Information on the studies can be obtained from Farm Production Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. 20250.

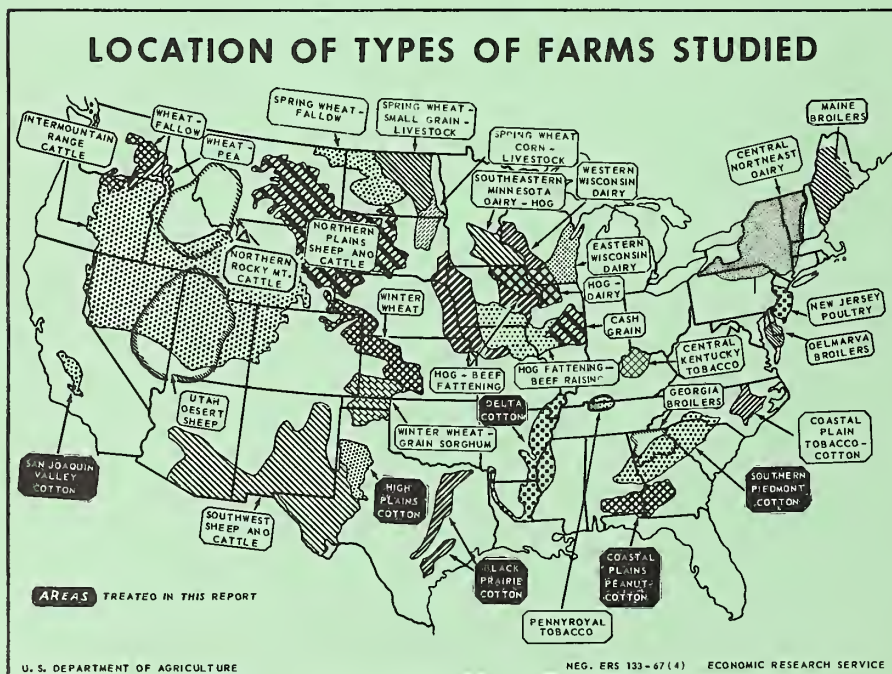


Figure 1

COSTS AND RETURNS

COMMERCIAL COTTON FARMS, 1966

J. Albert Evans and Dorothy Nolan¹

SUMMARY

This report presents information on costs and returns for commercial cotton farms in 6 important cotton-producing areas of the United States (fig. 1). Net farm incomes² for 1966, are compared with those for 1965 and the 1960-64 average:

	1960-64	1965	1966	Percentage change	
				1960-64 to 1966	1965 to 1966
Peanut-cotton farms, Southern Coastal Plains.	\$4,563	\$6,772	\$6,214	36	-8
Cotton farms:					
Southern Piedmont.....	2,656	2,558	2,511	-5	-2
Mississippi Delta:					
Small.....	2,207	2,367	2,407	9	2
Large-scale.....	32,506	30,631	38,248	18	25
Texas:					
Black Prairie.....	3,985	4,661	6,875	73	48
High Plains (nonirrigated).....	8,901	9,678	13,629	53	41
High Plains (irrigated).....	16,414	16,950	17,914	9	6
San Joaquin Valley, California, irrigated:					
Cotton-general crop, medium-sized.....	28,946	26,282	25,540	-12	-3
Cotton-general crop, large.....	87,030	73,740	66,794	-23	-9
Cotton-specialty crop.....	35,111	82,750	21,087	-40	-75

In 1966, net farm incomes were the highest of record in the Texas Black Prairie. They were the second highest of record in the Texas High Plains and Mississippi Delta.

The 1966 increases in net farm incomes of Mississippi Delta and Texas cotton farms resulted from larger Government payments, generally higher prices received for livestock and crops (except cotton), increased acreages and yields of such crops as soybeans and grain sorghum, and lower cash expenditures (except for the nonirrigated High Plains).

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² For definition of net farm income, see note at end of table 2.

On the California farms, net farm incomes were lower in 1966 because lower cash returns from cotton more than offset the effect of increases in Government payments and lower total expenses. Cotton acreages harvested and average yields per acre were each about 13 percent below 1965 levels and average prices for cotton lint were 19 percent lower, resulting in cotton making the smallest contribution to cash receipts in recent years. Also, prices received for potatoes, important on the cotton-specialty crop farms, averaged 57 percent below 1965.

Net farm incomes in 1966 averaged lower on peanut-cotton farms in the Southern Coastal Plains, because of lower yields of cotton, corn, and peanuts and a 31-percent drop in the average price received for cotton. Incomes on typical Southern Piedmont cotton farms declined for much the same reasons (except that peanuts are not grown on the Piedmont farms).

Except in the Far West, much of the 1966 cotton crop in the United States was affected adversely by too much rain and unusually cool temperatures during the planting and growing season. An unusually high percentage of cotton was replanted, sometimes to other crops, or abandoned. In the Southeastern and Delta States, heavy rains during June and July prevented effective insect control. After August rains, on the High Plains of Texas, bright prospects were dampened by an early freeze in mid-October resulting in reduced yields and lower grades. Much cotton was severely damaged by frost from Texas eastward in early November. The California cotton crop got off to an excellent start; however, hot, humid weather during August caused heavy shedding of squares and small bolls and contributed to a heavy buildup of insects for the rest of the

season; frequent rains from early November through mid-December delayed harvest and increased field losses.

The 1966 Upland Cotton Program contained several new features designed to reduce 1966 cotton production and the surplus of stored cotton. It was the first cotton program to offer producers an opportunity to reduce their cotton acreage through diversion payments to maintain their incomes. Diversion payments were 10.5 cents per pound of projected yield per acre times the acreage diverted which could be either 12-1/2 percent, 25 percent, or 35 percent of any given farm's effective allotment. The effective farm allotment reflects a given farm's cotton allotment plus or minus any adjustments due to release, reapportionment, purchase, sale, or lease of allotment acreage. Diverted acreage had to be devoted to a soil conserving crop or use, which in effect reduced the 1966 acres of harvested cropland on most cotton farms. However, under the program in 1966, a farm with an effective cotton allotment of not more than 10 acres or 3,600 pounds projected production could earn diversion payments on 35 percent of the allotment and still plant the full allotted acreage or earn extra diversion payments by diverting in the manner of larger farms. Government cotton programs prior to 1966 did not provide farmers an opportunity to earn diversion payments.

Another feature of the 1966 cotton program was that the price of cotton was supported near the world price, and farmers received larger price support payments to maintain their incomes. Price support payments could be earned in 1966 by cotton farmers participating in the acreage diversion program, except that "smaller farmers" as defined above

could earn these payments without reducing their planted acreages. The total 1966 price support payment for a farm was the product of 9.42 cents per pound times the projected yield per acre times 65 percent of the farm's effective allotment. The 1966 price support payment rate was 5.07 cents per pound more than in 1965.

Under the 1966 Upland Cotton Program, the price support loan rate was based on the national average rate of 21 cents per pound for Middling 1-inch cotton at average location--8 cents below a year earlier. Larger cotton farmers participating in the 1966 program could place their entire production under loan even if they elected to divert only 12-1/2 percent or 25 percent of their allotments.

Heavy participation by growers in the 35 percent diversion option of the 1966 Upland Cotton Program reduced plantings sharply to about 73 percent of the 1965 level. Table 1 shows that a high proportion of the 1966 national cotton allotment of 16 million acres was on farms participating in the program. Cotton farmers were so attracted to the program that, for example, in the San Joaquin Valley of California, 98 percent of total effective cotton allotments were on participating farms compared with only 8 percent in 1965. The extent of 1966 participation was high in all producing areas, but striking increases from 1965 are apparent for the Mississippi Delta, Texas Black Prairie and High Plains, and California San Joaquin Valley.

Table 1.--Extent of participation in upland cotton program, specified areas, 1965 and 1966

Selected areas	Percentage of all allotted cotton acreage in area--					
	On participating farms		Earning price support payments by participation		Earning diversion payments by participation	
	1965	1966	1965	1966	1965	1966
Southern Coastal Plains	75	91	46	54	---	35
Southern Piedmont	72	77	44	39	---	35
Mississippi Delta	25	99	16	64	---	30
Texas:						
Black Prairie	18	90	11	54	---	28
High Plains	17	99	11	64	---	33
San Joaquin Valley, Calif.	8	98	5	63	---	17

Beginning with the 1966 cotton crop, ASCS announced allotment program rules for measuring skip-row cotton fields were changed so that in a planting pattern where less than four rows were skipped, a larger percentage of the acreage of the field was counted as cotton allotment than in the years, 1962 to 1965, when the practice became increasingly utilized. Consequently, com-

paring 1966 with 1965, skip-row planted cotton, as a percentage of total planted acreage, declined 28 percent in Texas and 50 percent in Arkansas and California. In 1966, the proportion of total cotton acreage planted in skip-row patterns within selected States were: Georgia, 4 percent; Mississippi, 25 percent; Texas, 23 percent; and California, 19 percent.

In addition to receiving payments for participating in the 1966 Upland Cotton Program, Government payments could be earned for participating in the Feed Grain Program, Agricultural Conservation Program, Cropland Reserve Program, and the Wheat Program. Payments under the cotton program accounted for at least 70 percent of all Government payments received by the 10 farm types covered by this report. Total Government payments received in 1966 ranged from an average of 12 percent of total cash receipts on peanut-cotton farms to 41 percent on nonirrigated cotton farms in the High Plains of Texas.

On these 10 farm types, 1966 prices for cotton lint averaged from 6.5 to 10.2 cents per pound below 1965 levels. Thus, indexes of prices received for major products were below 1965 levels for 7 of the 10 types of cotton farms. Prices paid averaged higher for all except the San Joaquin Valley cotton-specialty crop farm, where chiefly because of lower prices paid for seed potatoes, the index was down.

Farm wage rates rose at an accelerated rate in 1966 as the generally tight labor market was felt at the farm level. Many farmers, rather than pay higher 1966 wage rates, made more extensive use of labor-saving equipment and materials. An example was the wider use of pre-emergence and post-emergence agricultural chemicals for controlling weeds. In some areas, farmers used tractors with greater row capacity to reduce labor costs and total cost per unit of production.

Peanut-Cotton Farms, Southern Coastal Plains

Net farm incomes in 1966 on peanut-cotton farms averaged about \$6,215 per farm (table 2), 8 percent

below the record high of \$6,770 in 1965. Farm production was down 19 percent, due to a 34-percent reduction in cotton acreage and lower per acre yields for cotton, corn, and peanuts.

Cotton acreage harvested in 1966 was about 31 percent less than in 1965, reflecting a very high rate of participation in the 1966 Upland Cotton Program.

Prices received for products sold in 1966 averaged 5 percent more than in 1965. Cotton lint prices averaged 31 percent less than in 1965, and peanuts prices remained about the same. Prices received for hogs, cattle, and corn ranged from 12 to 17 percent more. Prices paid for items used in production averaged 2 percent more than in 1965.

Total cash expenses averaged about \$4,745--7 percent below 1965. Smaller amounts were spent for fertilizers, pesticide materials, ginning, hiring machine work, and labor. Larger outlays were made for livestock, livestock feed, and taxes.

Cotton Farms, Southern Piedmont

On Southern Piedmont cotton farms, 1966 net farm incomes averaged \$2,510 (table 2). Although operating expenses were down \$350, gross farm income fell \$400, resulting in net farm income 2 percent below 1965.

Total cropland harvested in 1966 was 5 percent below a year earlier; cotton acreage averaged 23 percent lower. The expansion in soybean acreage continued in 1966.

Farm production declined 16 percent from 1965 because of less cotton acreage and reduced per acre yields of cotton and corn.

Table 2.--Organization, production, costs and returns, peanut-cotton farms, Southern Coastal Plains and cotton farms, Southern Piedmont, 1965 and 1966

Item	Unit	Peanut-cotton farms, Southern Coastal Plains		Cotton farms, Southern Piedmont	
		1965	1966 <u>1/</u>	1965	1966 <u>1/</u>
Cash receipts-----	Dollar	11,127	10,133	6,165	5,742
Cash expenditures-----	do.	5,081	4,744	4,382	4,033
Net cash income-----	do.	6,046	5,389	1,783	1,709
Net value of perquisites-----	do.	501	519	727	752
Net change in inventory-----	do.	225	306	48	50
Net farm income-----	do.	6,772	6,214	2,558	2,511
Total farm capital, Jan. 1-----	do.	29,230	33,970	36,540	41,280
Total labor used-----	Hour	3,590	3,060	4,390	3,810
Land in farm-----	Acre	195	200	247	254
Cropland harvested-----	do.	71	68	61	58
Crops harvested:					
Cotton-----	do.	16	11	26	20
Peanuts-----	do.	25	26	---	---
Corn-----	do.	<u>2/29</u>	<u>2/29</u>	10	11
Oats-----	do.	---	---	6	7
Wheat-----	do.	---	---	6	5
Crop yields per harvested acre:					
Cotton-----	Pound	510	460	405	380
Peanuts-----	do.	1,689	1,451	---	---
Corn-----	Bushel	52	40	43	34
Oats-----	do.	---	---	43	42
Wheat-----	do.	---	---	29	30
Prices received:					
Cotton, per pound-----	Dollar	.289	.200	.300	.213
Cottonseed, per ton-----	do.	43.98	64.81	44.63	61.37
Peanuts, per pound-----	do.	.111	.112	---	---
Corn, per bushel-----	do.	1.25	1.46	1.26	1.46
Oats, per bushel-----	do.	---	---	.78	.80
Wheat, per bushel-----	do.	---	---	1.43	1.59
INDEX NUMBERS (1957-59=100):					
Crop yields per acre-----	---	159	135	123	113
Net farm production-----	---	190	154	126	106
Production per hour of man labor---	---	183	175	134	130
Production per unit of input-----	---	136	121	115	103
Prices received for products sold--	---	104	109	95	90
Prices paid, including wages to hired labor-----	---	103	105	117	118

1/ Preliminary. 2/ Includes corn hogged off.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

The average price received for cotton lint dropped 29 percent, but farmers participating under the 1966 Cotton Program earned diversion payments and higher price support payments to help maintain their incomes. Prices received for cattle averaged 19 percent more than in 1965. Corn prices averaged 16 percent more, and prices for wheat were up 11 percent.

Price-cost relationships in 1966 were less favorable than in 1965. Prices received averaged 5 percent less, but prices paid rose 1 percent.

Total cash expenses in 1966 averaged about \$4,035--8 percent less than in 1965. The largest outlays were for purchase and operation of machinery and for labor, fertilizers, pesticide materials, and ginning. Total costs were lower for labor, fertilizer and ginning. Larger expenses were incurred for machinery purchase and operation, machine work hired, taxes, and livestock feed.

Small Cotton Farms, Mississippi Delta

On small cotton farms in the Mississippi Delta, 1966 net farm incomes averaged 2 percent above 1965 (table 3). Although 1966 gross farm incomes declined 4 percent, operating expenses were 9 percent less than in 1965.

Farm production averaged 22 percent less than in 1965, primarily because of a 25-percent reduction in cotton acreage harvested and lower per acre yields of cotton and corn.

The 24 percent decline in the average price received for cotton lint was offset by higher prices for: cot-

tonseed, up 40 percent; soybeans, up 14 percent; and wheat, up 21 percent. The index of prices paid rose 1 percent from 1965 level.

Machinery expenses accounted for 43 percent of total outlays in 1966. The next largest expenses were for machine work hired, feed, labor, and ginning. Outlays increased from 1965 for livestock feed, repairing farm buildings, and real estate taxes.

Large-Scale Cotton Farms, Mississippi Delta

On large cotton farms in the Mississippi Delta, 1966 net farm incomes averaged \$38,250--25 percent above the 1965 level (table 3). Gross farm incomes averaged 3 percent above 1965, reflecting greater returns from sales of soybeans and cattle, and larger payments for participating in the 1966 Upland Cotton Program. Operating expenses were 12 percent less than in 1965, due largely to the 26 percent decline in cotton acreage.

Farm production in 1966 averaged 19 percent below 1965, with the substantial drop in cotton production more than offsetting increased production of soybeans, wheat, and oats.

The index of prices received by large-scale cotton farmers was unchanged from the 1965 level, but the index of prices paid rose 3 percent.

Total cash expenses of Delta large-scale cotton farms averaged \$40,860, 12 percent below 1965. Machinery and hired labor accounted for nearly 60 percent of total costs. Compared with 1965, less was spent for fertilizers, agricultural chemicals, ginning, labor, and machinery--production inputs used intensively in producing cotton. Outlays for livestock feed and taxes increased.

Table 3.--Organization, production, costs and returns, cotton farms, Mississippi Delta, 1965 and 1966

Item	Unit	Small		Large-scale	
		1965	1966 <u>1/</u>	1965	1966 <u>1/</u>
Cash receipts-----	Dollar	4,877	4,593	75,262	77,113
Cash expenditures-----	do.	3,066	2,790	46,171	40,858
Net cash income-----	do.	1,811	1,803	29,091	36,255
Net value of perquisites-----	do.	498	508	1,279	1,315
Net change in inventory-----	do.	58	96	261	678
Net farm income-----	do.	2,367	2,407	30,631	38,248
Total farm capital, Jan. 1-----	do.	18,780	21,220	320,070	367,080
Total labor used-----	Hour	2,580	2,260	23,450	19,620
Land in farm-----	Acre	61	62	1,000	1,000
Cropland harvested-----	do.	39	36	636	597
Crops harvested:					
Cotton-----	do.	16	12	235	174
Soybeans-----	do.	19	20	322	345
Corn-----	do.	2	2	11	9
Oats-----	do.	---	---	11	10
Wheat-----	do.	1	1	38	42
Crop yields per harvested acre:					
Cotton-----	Pound	572	520	634	595
Soybeans-----	Bushel	22	23	24	25
Corn-----	do.	33	28	48	40
Oats-----	do.	---	---	45	57
Wheat-----	do.	23	28	28	36
Prices received:					
Cotton, per pound-----	Dollar	.296	.226	.293	.224
Cottonseed, per ton-----	do.	47.38	66.37	47.94	67.10
Soybeans, per bushel-----	do.	2.44	2.79	2.45	2.79
Corn, per bushel-----	do.	---	---	1.29	1.40
Oats, per bushel-----	do.	---	---	.70	.74
Wheat, per bushel-----	do.	1.29	1.56	1.29	1.56
INDEX NUMBERS (1957-59=100):					
Crop yields per acre-----	---	121	112	118	114
Net farm production-----	---	128	100	127	103
Production per hour of man labor---	---	160	143	191	185
Production per unit of input-----	---	120	104	129	117
Prices received for products sold---	---	98	98	98	98
Prices paid, including wages to hired labor-----	---	108	109	111	114

1/ Preliminary.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

Cotton Farms, Black Prairie, Texas

In 1966, net farm incomes on cotton farms in the Black Prairie of Texas averaged about \$6,875--48 percent above 1965 and the highest of record (table 4). Gross farm incomes averaged 19 percent more than in 1965, and operating expenses were slightly lower.

Cotton farmers in the Black Prairie reduced their cotton acreage an average of 22 percent from 1965. Grain sorghum acreage was increased 21 percent, and acreages of other crops were about at year earlier levels. Total cropland harvested averaged 9 percent below 1965.

The index of crop yields per acre for all crops on these farms was 26 percent above the previous record-highs of 1964 and 1965. Cotton yields averaged 308 pounds of lint per acre, 28 percent above the previous record in 1963 and 34 percent over 1965. Yields of grain sorghum, corn, and oats were 12, 17, and 23 percent, respectively, above 1965 levels.

Net farm production increased 10 percent from 1965, because higher crop yields outweighed the decline in cotton acreage and total cropland harvested.

Price-cost relationships in 1966 were less favorable than in 1965: prices received averaged 8 percent lower, while prices paid averaged 3 percent higher.

Cash expenses in 1966 averaged slightly below the 1965 level, largely because of the reduction in cotton acreage. Outlays for purchasing and operating machinery accounted for 44 percent of all cash expenses. Changes from 1965 expense levels were small, except for

the 43 percent decline in labor costs. Ginning expenses and real estate taxes were each up 8 percent, and livestock feed was up 7 percent.

Nonirrigated Cotton Farms, High Plains, Texas

On the nonirrigated cotton farms in the High Plains of Texas, net farm incomes in 1966 averaged \$13,630--41 percent above 1965 (table 4). Gross farm incomes averaged 20 percent more, and operating expenses were held near the 1965 level.

Farm production in 1966 averaged 4 percent below 1965, because the sharp reduction in cotton acreage more than offset higher crop yields and more grain sorghum acreage.

Reflecting heavy participation in the 1966 Cotton Program, harvested cotton acreage declined 26 percent from 1965. Acreage of grain sorghum harvested increased an average of 22 percent.

Yields of cotton lint and grain sorghum averaged 20 percent higher than in 1965, but cotton prospects had appeared even better before a mid-October freeze lowered lint yields and grades.

Prices received on these nonirrigated cotton farms averaged 15 percent below 1965, due mainly to a 32-percent decline in the average price of cotton lint. Prices for grain sorghum averaged the same while cattle prices rose 19 percent. Prices paid averaged 5 percent higher.

Total 1966 cash expenditures averaged \$10,220--2 percent above 1965. Nearly one-half of the total outlay related to farm machinery. Smaller outlays than in 1965 were

Table 4.--Organization, production, costs and returns, cotton farms, Texas, 1965 and 1966

Item	Unit	High Plains				Black Prairie	
		Nonirrigated		Irrigated			
		1965	1966 <u>1/</u>	1965	1966 <u>1/</u>	1965	1966 <u>1/</u>
Cash receipts-----	Dollar	18,758	22,737	34,446	32,595	10,396	12,463
Cash expenditures-----	do.	10,061	10,222	18,754	16,071	6,520	6,451
Net cash income-----	do.	8,697	12,515	15,692	16,524	3,876	6,012
Net value of perquisites-----	do.	646	662	843	871	621	653
Net change in inventory-----	do.	335	452	415	519	164	210
Net farm income-----	do.	9,678	13,629	16,950	17,914	4,661	6,875
Total farm capital, Jan. 1-----	do.	94,900	94,660	156,260	154,790	64,590	75,370
Total labor used-----	Hour	4,050	3,660	5,680	4,380	2,920	2,510
Land in farm-----	Acre	574	599	473	492	314	328
Cropland harvested-----	do.	332	317	304	285	170	155
Crops harvested:							
Cotton: Nonirrigated-----	do.	183	135	38	30	82	64
Irrigated-----	do.	---	---	136	99	---	---
Grain sorghum: Nonirrigated-----	do.	142	173	76	93	33	40
Irrigated-----	do.	---	---	51	61	---	---
Corn-----	do.	---	---	---	---	16	16
Oats-----	do.	---	---	---	---	19	17
Crop yields per harvested acre:							
Cotton: Nonirrigated-----	Pound	250	300	250	300	230	308
Irrigated-----	do.	---	---	580	525	---	---
Grain sorghum: Nonirrigated-----	Cwt.	10	12	10	12	26	29
Irrigated-----	do.	---	---	40	40	---	---
Corn-----	Bushel	---	---	---	---	30	35
Oats-----	do.	---	---	---	---	26	32
Prices received:							
Cotton, per pound-----	Dollar	.266	.180	.266	.180	.274	.172
Cottonseed, per ton-----	do.	47.34	66.10	47.34	66.10	46.42	70.09
Grain sorghum, per cwt.-----	do.	1.72	1.72	1.72	1.72	1.72	1.72
Corn, per bushel-----	do.	---	---	---	---	1.27	1.43
Cattle, per cwt.-----	do.	19.20	22.85	19.20	22.85	19.20	22.85
INDEX NUMBERS (1957-59=100):							
Crop yields per acre-----	---	100	119	112	106	118	149
Net farm production-----	---	127	122	132	101	154	169
Production per hour of man labor---	---	138	147	141	140	172	219
Production per unit of input-----	---	106	103	110	96	113	127
Prices received for products sold---	---	93	79	94	79	100	92
Prices paid, including wages to hired labor-----	---	111	116	111	114	107	110

1/ Preliminary.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

required for labor, ginning, and fertilizer. Larger amounts were spent for machinery, taxes, contract machine work, agricultural chemicals, and for maintaining farm buildings.

Irrigated Cotton Farms, High Plains, Texas

On irrigated cotton farms in the High Plains of Texas, 1966 net farm incomes averaged \$17,915--6 percent above 1965 (table 4). Although gross farm incomes averaged 5 percent below 1965, net farm incomes rose because of the combined effects of substantially larger Government payments and lower operating expenses, resulting from the significant decreases in cotton acreage and total cropland harvested. Farm production in 1966 averaged 23 percent below 1965, reflecting the substantial decline in cotton production.

Total cropland harvested averaged 6 percent less than in 1965. Participation in the 1966 Cotton Program resulted in reductions of 27 percent in irrigated cotton acreage harvested, and 21 percent in nonirrigated cotton acreage harvested. Acreage of grain sorghum harvested in 1966 averaged about 22 percent more than in 1965.

The 1966 index of all crop yields was 5 percent below 1965. Irrigated cotton yields averaged 9 percent below 1965. Irrigated grain sorghum yields in 1966 averaged the same as in 1965. Yields of nonirrigated cotton and grain sorghum rose 20 percent from 1965. A mid-October freeze lowered yields and grades of cotton lint.

Prices received on these irrigated cotton farms averaged 16 percent below 1965, due mainly to a 32-per-

cent decline in the average price of cotton lint. Prices for grain sorghum averaged the same as in 1965, but cottonseed prices were 40 percent higher, and cattle prices rose 19 percent. Prices paid averaged 3 percent more.

Total 1966 cash expenditures on irrigated cotton farms averaged \$16,070--14 percent below 1965. Most expense items were lower in 1966, reflecting decreases in total cropland harvested, cotton acreage harvested, and net farm production. The greatest reductions in expenses were for hired labor and ginning. Outlays for taxes and maintaining buildings were above 1965 levels.

Medium-Sized and Large Cotton-General Crop Farms, San Joaquin Valley, California

Net farm incomes on medium-sized and large cotton-general crop farms in the San Joaquin Valley of California were lower in 1966 than in 1965. On medium-sized farms, net farm incomes averaged \$25,540--3 percent below 1965--and on large farms, \$66,795 or 9 percent lower (table 5). Net farm incomes declined in 1966, mainly because cash receipts from cotton sales decreased more than enough to offset the cumulative effect of larger Government payments and reduced expenditures.

Table 1 shows that practically all of the allotted cotton acreage in the San Joaquin Valley was enrolled in the 1966 Upland Cotton Program, but that the percentage of allotted cotton acreage diverted was much less than in other important producing areas. California cotton producers have the advantage of higher yields and prices than most other important areas of production, and the relatively larger farms of the San Joaquin Valley

Table 5.--Organization, production, costs and returns, cotton farms, San Joaquin Valley, California (irrigated), 1965 and 1966

Item	Unit	Cotton-general crop				Cotton-specialty crop	
		Medium-sized		Large		1965	1966 <u>1/</u>
		1965	1966 <u>1/</u>	1965	1966 <u>1/</u>		
Cash receipts-----	Dollar	75,011	72,658	230,792	219,235	173,291	105,608
Cash expenditures-----	do.	50,116	48,109	159,270	154,026	91,832	85,471
Net cash income-----	do.	24,895	24,549	71,522	65,209	81,459	20,137
Net value of perquisites-----	do.	695	705	1,032	1,047	683	694
Net change in inventory-----	do.	692	286	1,186	538	608	256
Net farm income-----	do.	26,282	25,540	73,740	66,794	82,750	21,087
Total farm capital, Jan. 1-----	do.	315,570	337,380	1,082,460	1,159,330	318,020	339,880
Total labor used-----	Hour	9,360	8,220	27,690	24,800	12,190	11,300
Land in farm-----	Acre	362	367	1,325	1,345	362	367
Cropland harvested-----	do.	326	314	1,053	1,004	326	313
Crops harvested:							
Cotton-----	do.	127	111	411	359	114	98
Potatoes-----	do.	---	---	---	---	77	74
Alfalfa-----	do.	118	119	284	288	69	68
Barley-----	do.	45	38	332	324	66	73
Crop yields per harvested acre:							
Cotton-----	Pound	1,067	925	1,067	925	1,067	925
Potatoes-----	Cwt.	---	---	---	---	315	330
Alfalfa-----	Ton	5.4	5.7	5.4	5.7	5.4	5.7
Barley-----	Bushel	54	54	54	54	54	54
Prices received:							
Cotton, per pound-----	Dollar	.345	.280	.345	.280	.345	.280
Cottonseed, per ton-----	do.	47.00	61.20	47.00	61.20	47.00	61.20
Potatoes, per cwt.-----	do.	---	---	---	---	4.66	2.01
Alfalfa, per ton-----	do.	24.88	28.46	24.88	28.46	24.88	28.46
Barley, per bushel-----	do.	1.15	1.22	1.15	1.22	1.15	1.22
INDEX NUMBERS (1957-59=100):							
Crop yields per acre-----	---	104	95	104	95	105	103
Net farm production-----	---	105	89	103	86	103	93
Production per hour of man labor---	---	110	107	109	101	108	105
Production per unit of input-----	---	96	86	93	81	93	87
Prices received for products sold---	---	106	101	106	100	164	99
Prices paid, including wages to hired labor-----	---	110	114	111	115	117	114

1/ Preliminary.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

permit management efficiencies not possible elsewhere. Therefore, most farmers participating in the upland cotton program chose to plant the maximum acreage permitted--87-1/2 percent of their allotments.

Farm production in 1966 averaged between 15 and 17 percent below 1965 on these farms. These declines stem from substantial reductions in cotton production because of smaller acreages and yields.

Acreages of cotton harvested in 1966 averaged 13 percent below 1965. Barley acreage harvested in 1966 averaged 16 percent below 1965 on medium-sized farms. Total cropland harvested in 1966 on these farms averaged about 5 percent below 1965 levels.

The 1966 index of all crop yields on these farms averaged 9 percent below 1965. The lowest cotton yields in several years--13 percent less than in 1965 more than offset an average increase of 6 percent in alfalfa yields.

Prices received for products sold from these farms averaged about 5 percent lower than in 1965, but prices paid for production inputs were higher by 4 percent. Prices received for cotton lint declined an average of 19 percent, more than offsetting gains of 30 percent for cottonseed, 14 percent for alfalfa hay, and 6 percent for barley.

Total cash expenses in 1966 on medium-sized farms averaged \$48,110--4 percent less than in 1965. On large cotton-general crop farms, total expenses averaged \$154,025--3 percent below 1965. Expenses for purchasing, maintaining, and operating farm machinery, for labor, and irrigation equipment and water accounted for over one-half of all

expenses in these farms. Outlays in 1966 were below 1965 levels for fertilizers, pesticide materials, ginning, and labor. More was spent for hired machine work, irrigation systems, and taxes on real estate and personal property.

Cotton-Specialty Crop Farms, San Joaquin Valley, California

In 1966, net farm incomes on cotton-specialty crop farms in the San Joaquin Valley of California averaged \$21,090--75 percent below 1965 (table 5). Gross farm incomes averaged 39 percent less than in 1965 and operating expenses declined 7 percent. Gross and net farm incomes were drastically lower in 1966, primarily because potato prices were sharply lower than in 1965. In 1965, cash returns from potato sales had amounted to 65 percent of all cash receipts, but were only 46 percent of the 1966 total.

Almost all cotton-specialty crop farmers participated in the 1966 Upland Cotton Program. Government payments, which had been insignificant in 1965, accounted for 10 percent of all 1966 receipts and offset two-thirds of the reduction in cash receipts from cotton.

On these cotton-specialty farms 1966 cotton acreage harvested averaged 14 percent below 1965; potato acreage was down 4 percent, but barley acreage increased 11 percent. Total cropland harvested declined 4 percent from 1965.

The 1966 index of all crop yields on these farms averaged 2 percent below 1965. Cotton yields in 1966 averaged 13 percent below 1965 levels, but potatoes and alfalfa hay yields were higher.

Farm production averaged 10 percent less than in 1965, largely due to the much smaller cotton crop.

The index of prices received averaged 40 percent below 1965, due to sharply lower prices for potatoes and cotton lint. Other prices averaged above 1965 levels as follows: cottonseed, 30 percent; alfalfa hay, 14 percent; and barley, 6 percent. Prices paid in 1966 for production inputs averaged 3 percent below 1965, primarily because of a 45-percent decline in the average price of seed potatoes.

Total 1966 expenditures on cotton-specialty crop farms averaged \$85,470, 7 percent below the 1965 level. In 1966, machinery-related expenses (including hired machine work) and costs of irrigation and hired labor, accounted for 70 percent of total cash expenditures. The greatest reduction from 1965 in expense was for seed potatoes. Lesser outlays were also recorded for fertilizers, agricultural chemicals, and hired labor. More was spent in 1966 for machine work hired, and for taxes on real estate and personal property.

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